

AMENDMENTS TO THE CLAIMS

Please amend the claims without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows.

Please cancel claim 17 without prejudice.

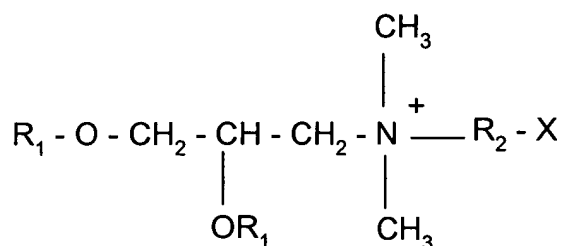
Please add claims 39 and 40.

In the Claims:

1. (Previously presented) A method for obtaining an immunogenic response comprising administering to a bovine or porcine:

(a) a DNA vaccine or immunogenic or immunological composition against a pathogen of a bovine or porcine comprising:

- (i) a plasmid containing and expressing a nucleotide sequence encoding an immunogen of a pathogen of the bovine or porcine; and
- (ii) a cationic lipid containing a quaternary ammonium salt, of formula



in which R₁ is a saturated or unsaturated linear aliphatic radical having 12 to 18 carbon atoms, R₂ is another aliphatic radical containing 2 or 3 carbon atoms, and X a hydroxyl or amine group;

and

(b) an inactivated, attenuated live, subunit or recombinant vaccine or immunogenic or immunological composition against a bovine or porcine pathogen,

wherein (a) and (b) are administered together in a combination or sequentially.

2-3. (Cancelled)

4. (Previously presented) The method according to claim 1 wherein the nucleotide sequence according to (a)(i) comprises a nucleotide sequence of BRSV.

5. (Previously presented) The method according to claim 4, wherein the nucleotide sequence of BRSV encodes F antigen and/or G antigen.

6-15. (Cancelled)

16. (Original) The method of claim 1 wherein (a) and (b) are sequentially administered, whereby there is a first administration of (b), followed by a subsequent administration of (a).

17. (Cancelled)

18. (Previously presented) The method of claim 1, wherein the vaccine or immunogenic or immunological composition according to (a) further comprises DOPE.

19. (Previously presented) The method of claim 1, wherein the vaccine or immunogenic or immunological composition according to (a) additionally comprises a bovine or porcine GM-CSF protein or an expression vector containing and expressing a nucleotide sequence encoding the GM-CSF protein.

20. (Cancelled)

21. (Previously presented) The method of claim 1, wherein the cationic lipid is DMRIE.

22. (Previously presented) The method of claim 1, wherein the nucleotide sequence encoding the immunogen has deleted therefrom a portion encoding a transmembrane domain.

23. (Previously presented) The method of claim 1, wherein the plasmid containing the nucleotide sequence encoding the immunogen further comprises a nucleotide sequence encoding a heterologous signal sequence.

24. (Previously presented) The method of claim 23, wherein the heterologous signal sequence is a tPA.

25. (Previously presented) The method of claim 1, wherein the plasmid containing the nucleotide sequence encoding the immunogen further comprises a stabilizing intron.

26. (Previously presented) The method of claim 25, wherein the stabilizing intron is intron II of rabbit beta-globin gene.

27. (Previously presented) The method of claim 1, wherein administration is sequential.

28. (Previously presented) The method of claim 27, wherein a prime boost regimen is used.

29. (Currently amended) The method of claim 5, wherein the nucleotide sequence of BRSV is optimized by substitution[[, by]] of a heterologous ~~signal~~ sequence[[, of]] for the signal sequence of the F antigen and/or G antigen of BRSV.

30. (Previously presented) The method of claim 29, wherein the heterologous signal sequence is from human tPA.

31. (Previously presented) The method of claim 5, wherein the nucleotide sequence of BRSV is optimized by deletion therefrom of a portion encoding a transmembrane domain of F antigen and/or G antigen.

32. (Previously presented) The method of claim 5, wherein the cationic lipid is DMRIE.

33. (Previously presented) The method of claim 32, wherein the vaccine or immunogenic or immunological composition of (a) further comprises DOPE.

34. (Previously presented) The method of claim 5, wherein the nucleotide sequence of BRSV encodes F antigen, and wherein the nucleotide sequence is optimized by:

- (a) insertion of human tPA signal sequence in place of F antigen signal sequence; and
- (b) deletion of the transmembrane domain and contiguous C-terminal portion.

35. (Previously presented) The method of claim 34, wherein the vaccine or immunogenic or immunological composition of (a) further comprises a second expression plasmid comprising a nucleotide sequence encoding BRSV G antigen, and wherein the nucleotide sequence encoding BRSV G antigen is optimized by:

- (a) insertion of human tPA signal sequence in place of G antigen signal sequence;
and
- (b) deletion of the transmembrane domain and contiguous C-terminal portion.

36. (Previously presented) The method of claim 5, wherein administration is sequential.

37. (Previously presented) The method of claim 36, wherein a prime boost regimen is used.

38. (Previously presented) The method of claim 1, wherein the pathogen of a bovine or porcine in (a) and (b) are the same pathogen.

39. (New) The method of claim 1 wherein (a) and (b) are administered together in a combination.

40. (New) The method of claim 5, wherein (a) and (b) are administered together in a combination.